

CLAIMS

1. Fluoropolymer suitable for the preparation of a fluoroelastomer, said fluoropolymer comprising:
 - 5 a. 10 to 50 mole % of repeating units derived from tetrafluoroethylene;
 - b. 15 to 40 mole % of repeating units derived from hexafluoropropylene;
 - c. 25 to 59 mole % of repeating units derived from vinylidene fluoride;
 - d. 1 to 20 mole % of repeating units derived from chlorotrifluoroethylene; and optionally
 - 10 e. one or more repeating units derived from fluorinated monomers other than tetrafluoroethylene, hexafluoropropylene, vinylidene fluoride and chlorotrifluoroethylene.
2. Fluoropolymer according to claim 1 wherein said optional one or more repeating units
15 are derived from a perfluorinated vinyl ether monomer.
3. Fluoropolymer according to claim 2 wherein said optional one or more repeating units are present in a total amount of upto 25 mole %.
- 20 4. Fluoropolymer according to claim 1 wherein said fluoropolymer has a bi-modal or multi-modal molecular weight distribution.
5. Fluoropolymer according to claim 1 wherein said fluoropolymer comprises one or more cure sites capable of engaging in a peroxide cure reaction.
- 25 6. Fluoropolymer according to claim 5 wherein said cure sites comprise bromine and/or iodine atoms.
7. Curable fluoroelastomer composition comprising a fluoropolymer as defined in claim 1
30 and a cure composition.

8. Curable fluoroelastomer composition according to claim 7 wherein said cure composition comprises a polyhydroxy compound and an onium compound.
- 5 9. Curable fluoroelastomer composition according to claim 7 wherein said cure composition comprises an organic peroxide.
- 10 10. Curable fluoroelastomer composition according to claim 7 further comprising an organic compound comprising a hydride function MH, wherein M is selected from Si, Ge, Sn and Pb.
11. Component of a fuel management system comprising a fluoroelastomer obtained by curing the curable fluoroelastomer composition defined in claim 7:
- 15 12. Method of making a fluoropolymer as defined in claim 1, comprising an aqueous emulsion polymerization of tetrafluoroethylene, hexafluoropropylene, vinylidene fluoride, chlorotrifluoroethylene and optional further fluorinated monomers in an amounts appropriate so as to obtain a fluoropolymer having the composition as defined in claim 1.
- 20 13. Method according to claim 12 wherein said method is carried out without addition of a fluorinated surfactant.
- 25 14. Method according to claim 12 wherein an aerosol of liquid fluorinated monomer or a liquid fluorinated hydrocarbon is provided and fed with steam heating into a reaction vessel in which said aqueous emulsion polymerization is carried out.